

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 6

### REMARKS

Receipt of the Office Action mailed March 20, 2003, in the above-identified patent application, which Office Action was made final, is respectfully acknowledged. Claims 1-3, 8-10, 15, 17, 18 and 25 remain in the application. Claims 4-7, 11-14, 16, 19-24 and 26-33 have been cancelled, either previously or herein. Claims 34-50 have previously been withdrawn as directed to a non-elected invention. Previously added claims 51 and 52 have also been cancelled in the present Response. In addition, claims 1, 8, 9, 10, 15, 18 and 25 have been amended herein. New dependent claims 53 and 54 have been added herein. These amendments and new claims are fully supported by the Application and no new matter has been added.

Reconsideration of the application and a Notice of Allowance is respectfully requested based on the above amendments and the following comments.

#### The Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claims 1-3, 8-10, 15, 17, 18 and 25 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner alleges that the claims set forth physical characteristics desired in the article but fail to set forth specific compositions which would meet such characteristics, and further requires Applicant to set forth specific compositions for the first, second and third layers of the multilayer stacks. The Examiner supports his rejection by stating that claims merely setting forth physical characteristics desired in an article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future and which would impart desired characteristics.

The Examiner's rejection under 35 U.S.C. § 112, second paragraph, as stated above and in the Office Action is respectfully traversed. Applicant has now amended independent claims 1 and 18 to further clarify the invention. Claim 1 now defines a reduced glare, conductive coated panel comprising a transparent substrate having a first and second surface, a first multilayer stack disposed on the first surface of the substrate and comprising at least a first transparent, thin film layer, a second transparent, thin film layer, and a third transparent thin film layer and a second multilayer stack disposed on the second surface of the substrate, the second stack comprising at least a first transparent, thin film layer, a second

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 7

transparent, thin film layer and a third transparent thin film layer. Each thin film layer in the first stack corresponds to the thin film layer in the second stack. Moreover, claim 1 now states that each of the transparent thin film layers of the first stack has a refractive index. The first transparent thin film layer of the first stack is disposed on the first surface of the substrate, the second transparent thin film layer of the first stack being disposed on the first thin film layer and the third transparent thin film layer of the first stack being disposed on the second thin film layer of the first stack. In addition, each of the transparent thin film layers of the second stack has the refractive index of its corresponding transparent thin film layer of the first stack. The first transparent thin film layer of the second stack is disposed on the second surface of the substrate. The second transparent thin film layer of the second stack is disposed on the first thin film layer of the second stack, while the third transparent thin film layer of the second stack is disposed on the second thin film layer of the second stack. Further, the film thickness of any one of the thin film layers of the second stack is different than the thickness of the corresponding thin film layer of the first stack while at least one of the thin film layers of the first stack has a thickness greater than the thickness of the corresponding thin film layer of the second stack. Also, the material composition of the corresponding layers in each of the first and second stacks is now stated in claim 1 to be the same while the refractive index of each of the second thin film layers in the first and second stacks is greater than the refractive index of the other thin film layers in those stacks and refractive index of the third thin film layer in each of the first and second stacks is less than the refractive index of the other thin film layers in the first and second stacks. Also, a transparent conductive thin film is on the third thin film layer of the first stack, the transparent conductive thin film comprising a material selected from at least one of indium tin oxide, doped tin oxide and doped zinc oxide whereby visible light transmission through the coated panel is increased as compared to the substrate coated only with the transparent conductive thin film.

Claim 18 has been amended to define a reduced glare conductive coated panel comprising a transparent substrate having a first and second surface, a first transparent interference thin film disposed on the first surface and a second transparent interference thin film disposed on the second surface, the first thin film corresponding to but having a thickness greater than the second thin film. Claim 18 now also defines a third thin film disposed on the first thin film and a fourth thin film disposed on the second thin film, the

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 8

third thin film corresponding to but having a thickness greater than the fourth thin film. Also, a fifth thin film is disposed on the third thin film and a sixth thin film is disposed on the fourth thin film, the fifth thin film corresponding to but having a thickness greater than the sixth thin film. The material composition of each of the corresponding thin films is the same. Also, the coated panel includes a transparent conductive coating on the fifth thin film, the transparent conductive coating being selected from at least one of indium tin oxide, doped tin oxide and doped zinc oxide. Further, each of the first, second, third, fourth, fifth and sixth thin films has a refractive index with the refractive index of the third and fourth thin films being greater than the refractive index of the other thin films while the refractive index of the fifth and sixth thin films is less than the refractive index of the other thin films whereby visible light transmission through the coated panel is increased compared to the substrate coated only with the transparent conductive coating.

Dependent claims 2 and 3 state that the transparent substrate of currently amended claim 1 may be either glass or selected from the group consisting of glass and plastic. Claims 8-10 depend from currently amended claim 1 and state the specific material and refractive index for the first layers, claim 9 depends from currently amended claim 1 and states the specific composition and refractive index for the second layers while claim 10 depends from currently amended claim 1 and states the specific composition and refractive index for the third layers.

Claim 15 depends from amended claim 1 and defines a transparent conductive thin film on the third thin film layer of the second stack being selected from at least one of indium tin oxide, doped tin oxide and doped zinc oxide.

Claim 17 depends from amended claim 1 and states that each of the layers of the first stack has a thickness greater than the thickness of the corresponding layer of the second stack.

Claim 25 now depends from claim 18 and defines a transparent conductive coating on the sixth thin film.

New claims 53 and 54 are dependent on claim 8 and define the specific compositions of the second and third layers as well as their refractive indices.

As amended, the claims remaining in the application and added herein are not vague, indefinite and functional but do particularly point out and distinctly claim the subject matter which Applicant regards as the invention. They define a specific arrangement of

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 9

substrate and thin film layers having specific physical characteristics which allow one skilled in the art to fully understand the invention defined by each of these claims. Although dependent claims 8-10, 53 and 54 define specific material compositions, Applicant is unaware of any requirement in the statute or case law requiring that specific compositions for the first, second and third layers of the multilayer stacks or indeed any of the thin film layers defined in the claims as amended, remaining or added herein to be included. When Applicant's claims as now set forth in this application are read in light of Applicant's specification, they reasonably apprise those skilled in the art of the use and scope of the invention. Moreover, the claim language is as precise as the subject matter permits while allowing Applicant the proper breadth of coverage for her invention such that the claims are definite under § 112, second paragraph. See *Shatterproof Glass Corp. v. Libbey Owens Ford Co. et al.*, 225 USPQ 634, 641 (Fed. Cir. 1985), cert. dismissed, 474 US 976 (1985), where the Court upheld the validity of certain claims to an apparatus and method for sputter-coating glass sheets even though those claims did not recite the size of the sheets or the quantity or quality of the coating. When considered with the description in the specification, the claims were found to reasonably apprise those skilled in the art of both the use and scope of the invention.

In addition, it is respectfully submitted that the Examiner has not established a *prima facie* case of indefiniteness by stating that the claims fail to recite a specific limitation described in the specification. In general, the absence of a limitation in a claim when that limitation is described in the specification does not make a claim indefinite. This principle is the basis of the Federal Circuit's consistent refusal to read limitations of the specification into the claims. See *In re Prater and Wei*, 162 USPQ 541, 550 (CCPA 1969). See also *In re Wakefield and Foster*, 164 USPQ 636, 641 (CCPA 1970) where a claim was improperly considered indefinite for failing to recite limitations described in the specification. In *Wakefield*, the invention related to a method of making a synthetic polyisoprene having a specific molecular structure. The Examiner rejected certain claims that recited a negative limitation that excluded the characteristics of the prior art products. The Examiner contended that this limitation would encompass "a virtually unlimited number of materials." However, the Court of Customs and Patent Appeals reversed the Examiner stating that "the scope of the claim is still definite . . . because each recited limitation is definite." As such, *Wakefield* holds that the definiteness of claim language is measured solely on the basis of the limits

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 10

recited in the claim and not in view of additional unrecited features described in the specification. The lack of such unrecited features from the specification in the claim is not a basis to establish a *prima facie* case of the indefiniteness. See also *In re Fisher*, 166 USPQ 18, 23 (CCPA 1970), cert. denied, 401 U.S. 956 (1971), where the Court reversed the Board of Appeals and the Examiner stating that the fact a claim was not limited to compositions disclosed or suggested in the specification is entirely irrelevant to the issue of claim definiteness.

Further, simply because claims are interpreted in light of the specification does not mean that everything expressed in the specification must be read into all the claims. See *Raytheon Co. v. Roper Corp.*, 220 USPQ 592, 597 (Fed. Cir. 1983), cert. denied, 469 U.S. 835 (1984). In *Raytheon*, the Federal Circuit stated to the contrary and quoted *Environmental Designs, LTD. v. Union Oil Co. of California*, 218 USPQ at 871, (Fed. Cir. 1983) with approval:

The specification must be sufficiently explicit and complete to enable one skilled in the art to practice the invention, while a claim defines only that which the patentee regards as his invention. 35 USC § 112. The claim, not the specification, measures the invention. (case citation omitted). The argument that claim 1 must include a limitation found in the specification is, thus, legally unsound. (citation omitted).

Therefore, it is respectfully submitted that the law as decided by the Federal Circuit does not require Applicant to set forth specific compositions for the thin film layers now set forth in the amended claims. Rather, Applicant has set forth specific thin film layers, thicknesses and refractive indices which can be clearly understood by one skilled in the art and provide a definite understanding and definition of the invention. Accordingly, it is respectfully submitted that, in view of the above amendments and case decisions, the rejection under 35 U.S.C. § 112, second paragraph, should be withdrawn.

The Claim Rejections Under 35 U.S.C. § 103(a)

In addition, the Examiner has rejected claims 1-3, 8-10, 15, 17, 18, and 25 under 35 U.S.C. § 103(a) as being unpatentable over Denton U.S. 4,802,737 in view of Applicant's disclosure in the present specification at page 1, lines 12-14. The Examiner concludes that it would have been obvious to coat the anti-reflective article of Denton with a transparent conductive coating such as indium tin oxide as disclosed in Applicant's disclosure

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 11

because the electrically conductive anti-reflective coating may be used in Applications such as touch panels, digitizer panels and information displays. Although the Examiner recognizes that Denton does not disclose the use of different corresponding thicknesses, he nevertheless concludes that it would have been obvious to adjust the thickness of the layers in Denton since it has been held that "discovering an optimum value of a result effective variable involves only routine skill in the art."

It is respectfully submitted that there is no cited basis or support for that statement by the Examiner in the Office Action, nor is there any cited support for Examiner's statement on page 5 that one having ordinary skill in the art would adjust the thickness of the layers because of an understanding that the layer thicknesses determine properties such as transmittance, emissivity and color and, again, because "discovering an optimum value involves only routine skill." The Examiner further relies on the Applicant's alleged failure to show "unexpected results" from varying the thicknesses as set forth in claim 1. Applicant respectfully traverses the Examiner's statement on page 6 of the Office Action that Denton '737 teaches the currently claimed film composition and film layer arrangement which are directly responsible for increased visible light transmission of the panel.

More specifically, and as set forth previously of record herein, Denton '737 discloses an anti-reflection overlay device which is stated to reduce light reflection as seen by a viewer. Denton includes a section of etched glass proposed for use as an overlay for a picture frame including artwork, the etched glass having a coating of non-reflection material on both of its front and rear surfaces. Three coatings are formed by dipping the etched glass in various solutions, 1) of silicon hydroxide and titanium hydroxide followed by heating, 2) titanium hydroxide followed by heating, and 3) silicon hydroxide followed by heating.

It is respectfully submitted that Denton fails to disclose the elements of Applicant's amended claims 1 and 18 as well as the remaining claims dependent thereon or to produce the same results as Applicant's invention, or to recognize the problem solved by Applicant's invention, i.e., preparing anti-reflective thin film stacks for receipt of electrically conductive coating to provide optimum light transmission characteristics. The Examiner has clearly recognized that Denton fails to include film stacks on first and second sides of a substrate where the film thickness of any one of the film layers of the second stack is different from the thickness of the corresponding thin film layer of the first stack and at least one of the thin film layers of the first stack has a thickness greater than the thickness of the

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 12

corresponding thin film layer of the second stack (claim 1, as currently amended). In claim 18, each of the first, third and fifth thin films has a thickness greater than the corresponding second, fourth and sixth thin films on the second surface of the transparent substrate. These combinations are not disclosed in Denton. Indeed, Denton fails to disclose any thickness difference but rather states that the multilayer coating follows the general anti-reflective configuration of one-quarter wavelength for the first layer, one-half wavelength for the second layer, and one-quarter wavelength for the third layer. See Denton at column 4, lines 19-26. The wavelength, and thus the specific thicknesses, are not specified. However, it is clear that the thickness of the layers on each surface in Denton are the same unlike Applicant's claimed invention here.

Moreover, Applicant does state the benefit of the present invention at page 1, lines 17-23 and page 5, lines 8-13, i.e., the present invention provides a reduced glare conductively coated panel and method for manufacturing same which allows preparation of each of the two sides of the substrate differently through the use of a lesser expensive, more highly efficient wet deposition process so that one side of the substrate is prepared to receive an additional electrically conductive coating layer so as to maximize light transmission through the coated substrate when such conductive coating is included. These benefits and differences are not disclosed in Denton and are not supplied by Applicant's statement at page 1, lines 12-24.

It should be noted that Applicant has now included in amended claims 1 and 18 the fact that the refractive index of each of the second film layers is greater than the refractive index of the other thin film layers, while the refractive index of the third thin film layers in each stack is less than the refractive index of the other thin film layers in the first and second stacks (claim 1). In claim 18 as amended, the refractive index of the third and fourth thin films is greater than the other thin films, and the refractive index of the fifth and sixth thin films is less than the refractive index of the other thin films. Therefore, Applicants have now defined in claims 1 and 18 combinations of thin film layers having refractive indices of a specific arrangement in combination with thicknesses differing from one another for receipt of a transparent conductive coating layer which provides a unique benefit not disclosed in either reference relied on by the Examiner. Applicant's specification referred to by the Examiner at page 1, lines 12-24 merely states that conductively coated transparent substrates for use in touch screens, digitizer panels or information displays typically make

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 13

use of anti-reflective, thin film coatings or stacks. This disclosure does not state that the thicknesses of the thin films in one stack are different from or greater than those in another stack, especially in the arrangement now defined by Applicant in her amended claims. Likewise, Denton fails to disclose such thicknesses as now defined by Applicant in the amended claims as is clearly recognized by the Examiner. Therefore, neither reference, taken alone, discloses Applicant's unique combination as set forth in the amended claims.

Although the Examiner argues that the references may be combined, the stated reason is because the electrically conductive anti-reflective article may be used in Applications such as touch panels, digitizer panels and information displays. See Office Action at page 5. However, even if the references are combined hypothetically, they totally fail to disclose Applicant's combination of thicknesses and refractive indices which produces the unique result of Applicant's invention.

It is respectfully submitted that Applicant's specification does show a benefit for the invention which is not disclosed or suggested by the references taken alone or in combination. The Examiner has not shown any factual or legal support that one of ordinary skill would adjust the thicknesses of the layers to arrive at Applicant's invention. The cited references must be modified to arrive at Applicant's invention and under appropriate legal standards, such modification must be suggested in the references or the rejection cannot be sustained. As stated by the Federal Circuit in *In re Fritch*, 23 USPQ 2d 1780 (Fed. Cir. 1992) where the Court reversed a rejection by the Examiner for lack of suggestion to modify certain references for combination with one another to arrive at the claimed invention:

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. Wilson and Hendricks fail to suggest any motivation for, or desirability of, the changes espoused by the Examiner and endorsed by the Board.

Here the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This Court has previously stated that "one cannot use hindsight reconstruction to pick and choose amongst isolated disclosures in the prior art to deprecate the claimed invention." 23 USPQ 2d at 1783-84 quoting *In re Fine* 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988).



Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 14

In the present application, neither Denton nor the cited portion of Applicant's specification at page 1, lines 12-24 includes any suggestion or motivation for modifying the thicknesses of the layers in Denton for use with a transparent conductive coating in combination with the claimed relationship of the refractive indices of the thin film layers. The use of Applicant's own specification as a suggestion for such modification of such thicknesses together with the stated indices of refraction is impermissible. Therefore, the Examiner's statement that "Denton teaches the currently claimed film composition and film layer arrangement which are directly responsible for increased visible light transmission of the panel" is respectfully traversed since Denton does not teach Applicant's claimed combination of thin film layers, thicknesses, and indices of refraction as set forth in amended claims 1 and 18.

The Examiner's reliance on the obviousness of one who is skilled in the art being able to adjust thicknesses of layers as stated on page 5 of the Office Action is also respectfully traversed because of the lack of any factual or legal basis for such statement. As stated by the Federal Circuit in *In re Fine*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988):

He argues that the appealed claims were rejected because the PTO thought it would have been "obvious to try" the claimed invention, an unacceptable basis for rejection. We agree. The PTO has the burden under § 103 to establish a prima facie case of obviousness. (citation omitted) It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. (citations omitted) This it has not done. The Board points to nothing in the cited references, either alone or in combination, suggesting or teaching Fine's invention. The primary basis for the Board's affirmance of the Examiner's rejection was that it would have been obvious to substitute the Warnick nitric oxide detector for the Eads sulphur dioxide detector in the Eads system. The Board reiterated the Examiner's bald assertion that "substitution of one type of detector for another in the system of Eads would have been within the skill of the art," but neither of them offered any support for or explanation of this conclusion.

Similarly, in the present case, the Examiner has not supported the assertion that one of ordinary skill would adjust the thicknesses of the thin film layers as claimed by

Applicant : Catherine A. Getz  
Serial No. : 09/883,654  
Page : 15

Applicant here to arrive at Applicant's invention which has benefits not found in the cited references. Therefore, a *prima facie* case of obviousness has not been made.

With respect to the dependent claims, the use of either glass or plastic as a substrate in the combination of amended claim 1 is not disclosed or suggested by either of the cited references. Likewise, the use of the specific layers and indices of refraction as set forth in claims 8-10 and new claims 53 and 54 in the combination of amended claim 1 has also not been shown or disclosed in the cited references. Also, the inclusion of a transparent conductive coating on the third film layer of both surfaces as set forth in claim 15 in the combination of amended claim 1, as well as on the fifth and sixth layers as set forth in claim 25 in the combination of amended claim 18 is also not disclosed or suggested by the cited references. As previously set forth of record herein, Fujii et al. 6,411,344 does not disclose a coated panel with thin films as defined in amended claims 1 or 18. Fujii et al. discloses a different structure namely a retardation film and achieves its results differently than the present invention as defined in dependent claim 15. Further, claim 17 stating that each layer of the first stack in amended claim 1 has a thickness greater than the corresponding layer of the second stack on the second surface is also not disclosed or suggested by the cited references for the reasons expressed above.

Accordingly, it is respectfully submitted that the claims remaining in the application as amended and new claims 53 and 54 are definite and that a *prima facie* case of obviousness based on Denton '737, the cited portions of Applicant's specification, and/or Fujii et al. '344, taken alone or in combination, cannot be sustained. A Notice of Allowance is, therefore, respectfully requested.

Respectfully submitted,

CATHERINE A. GETZ

By: Van Dyke, Gardner, Linn & Burkhardt, LLP

JUNE 19, 2003  
Date

Donald S. Gardner  
Donald S. Gardner  
Registration No. 25 975  
2851 Charlevoix Drive, S.E.  
P.O. Box 888695  
Grand Rapids, MI 49588-8695  
(616) 975-5502

DSG/ram